

Appendix D

Surface Water Monitoring Systems Information

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B l a n k P a g e

Surface Water Monitoring Systems Information

Stream Monitoring Stations

During the period covered by this report, the fixed-station sampling network used by NMED consisted of 21 stations on 10 New Mexico streams, one station on Cochiti Lake and one station on the Rio Grande in Texas (Figure 22). All data from these stations are collected by the United States Geological Survey (USGS). All water quality data from these stations are entered into STORET, the EPA computerized data storage system, and WATSTORE, the USGS computerized data storage system (Table 14). Water quality sampling efforts at the 21 stream stations and one lake station in New Mexico are funded jointly by NMED and USGS. The station on the Rio Grande at El Paso is funded by

USGS as part of two different long-term projects ~ the National Stream Quality Accounting Network (NASQAN) and the National Water Quality Assessment Program (NAWQA). Stations under these studies were selected to represent outflow from major drainage basins or sub-basins.

The primary objective of these networks is to measure any regional variations in water quality and to detect water quality trends.

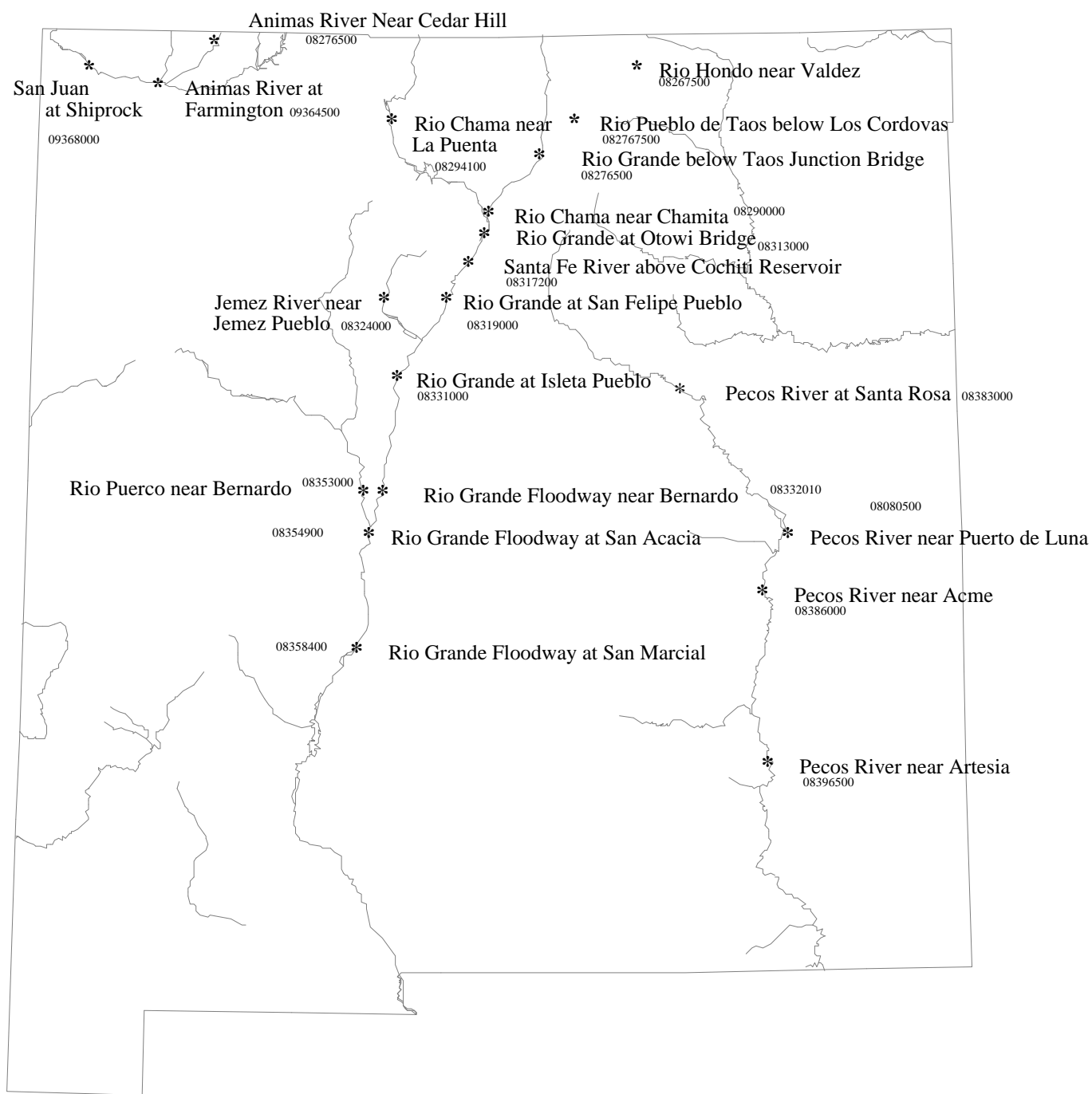
Special Surveys

The Surface Water Quality Bureau of the NMED conducts several special surveys each year on a prioritized basis in selected stream segments. Parameters sampled during these surveys are listed in Table 16.

Toxics Monitoring

Total concentrations of certain trace elements are monitored, generally on a semiannual basis, at all except one of the stations in the New Mexico water quality surveillance network. Bottom material samples are collected annually at all stations and analyzed for the parameters listed. Trace element data are also collected routinely during special surveys. Organics monitored in one special survey conducted during 1996 and 1997 on the Navajo River are listed in Table 15. Table 17 lists toxics monitored during a 1998 survey of representative effluent discharges.

Figure 22. Location of Stream Monitoring Stations in New Mexico Sampled Regularly by the United States Geological Survey.



* = Stream Water Quality Monitoring Station

Table 14. Location of Current U.S. Geological Survey Stream Quality Monitoring Stations funded by the New Mexico Environment Department

WATSTORE or STORET Station No.	Location
08267500.....	Rio Hondo near Valdez
08276300.....	Rio Pueblo de Taos below Los Cordovas
08276500.....	Rio Grande below Taos Junction Bridge
08284100.....	Rio Chama near La Puente
08290000.....	Rio Chama near Chamita
08313000.....	Rio Grande at Otowi Bridge
08317200.....	Santa Fe River above Cochiti Lake
08319000.....	Rio Grande at San Felipe Pueblo
08324000.....	Jemez River near Jemez Pueblo
08331000.....	Rio Grande at Isleta Pueblo
08332010.....	Rio Grande Floodway near Bernardo
08353000.....	Rio Puerco near Bernardo
08354900.....	Rio Grande Floodway at San Acacia
08358400.....	Rio Grande Floodway at San Marcial
08383000.....	Pecos River at Santa Rosa
08383500.....	Pecos River near Puerto de Luna
08386000.....	Pecos River near Acme
08396500.....	Pecos River near Artesia
09363500.....	Animas River near Cedar Hill
09364500.....	Animas River at Farmington
09368000.....	San Juan River at Shiprock

Table 15. Parameters and STORET Codes for Organic Chemicals Analyzed During the Special Water Quality Surveys Conducted in 1996 and 1997.

Aldrin.....	039330
Alpha Benzene Hexachloride	039337
Beta Benzene Hexachloride.....	039338
Chlordane, alpha.....	039348
Chlordane, gamma.....	039810
Chloropyrifoser.....	077969
DDD	039360
DDE.....	039365
DDT.....	039370
Delta Benzene Hexachloride	034259
Dieldrin.....	039380
Endosulfan.....	039388
Endosulfan Sulfate.....	082623
Endosulfan, beta	082624
Endrin	039390
Endrin Aldehyde.....	082622
Endrin Ketone.....	078008
Gamma-BHC(Lindane)	039340
Heptachlor	039410
Heptachlor Epoxide	039420
Hexachlorobenzene	039700
Hexachlorocyclopentene.....	078022
Methoxychlor.....	039480
PCB - 1232	039492
PCB - 1242	039496
PCB - 1248	039500
PCB - 1254	039504
PCB - 1260	039508
PCP (Pentachlorophenol).....	039032
Picloram.....	039720
Pronamide.....	039080
Propachlor.....	030295
Propoxur	030296
Silvex.....	039760
Simazine	039055
Terbacil.....	030311
Toxaphene	039400
Triadimefon	038892
Trifluralin	081284

Table 16. Sample Types, Parameters and STORET Codes for Environmental Measurements Performed During Special Surveys Conducted by the New Mexico Environment Department

TYPE	PARAMETER	STORET CODE
Physical	Conductivity	00402
	Temperature.....	00010
	Total non-filterable residue (TSS)	00530
	Total filterable residue (TDS).....	70300
Chemical	Color.....	00081
	Fluoride	00951
	Bicarbonate.....	00440
	BOD ₅ (5-day).....	00310
	Calcium	00916
	Chloride	00940
	Magnesium	00925
	pH.....	00400
	Potassium.....	00935
	Sodium	00930
	Sulfate.....	00945
	Total Kjeldahl nitrogen.....	00625
	Total residual chlorine.....	450060
	Total ammonia nitrogen.....	00610
	Total nitrite + nitrate nitrogen	00630
	Total hardness (as CaCO ₃)	00900
	Total organic carbon.....	00680
	Total phosphorus	00665
	Total alkalinity	00410
	Total cyanide.....	00720
	Aluminum dissolved (total)	01106 (01105)
	Arsenic dissolved (total)	01000 (01002)
	Barium dissolved (total)	01005 (01007)
	Beryllium dissolved (total)	01010 (01012)
	Boron dissolved (total)	01020 (01022)
	Cadmium dissolved (total).....	01025 (01027)
	Calcium dissolved	82036 (82032)
	Chromium dissolved (total)	01030 (01034)
	Cobalt dissolved (total).....	01035 (01037)
	Copper dissolved	01040 (01042)
	Iron dissolved (total).....	01046 (01045)
	Lead dissolved (total)	01049 (01051)
	Magnesium dissolved.....	82037 (82033)
	Manganese dissolved (total)	01056 (01055)
	Mercury dissolved (total)	71890 (71900)
	Molybdenum dissolved (total).....	01060 (01062)
	Nickel dissolved (total).....	01065 (01067)
	Selenium dissolved (total)	01145 (01147)
	Silicon dissolved.....	01140 (01142)
	Silver dissolved (total).....	01075 (01077)
	Strontium dissolved	01080 (01082)
	Tin dissolved (total).....	01140 (01142)
	Vanadium dissolved (total).....	01085 (01087)
	Zinc dissolved (total).....	01090 (01092)
Biological	Fecal coliform bacteria (MF).....	74055
	BOD ₅ (5 day).....	00310
Radiochemistry	Radium-226 total	09501
	Radium-228 total	11501
	Radium-226 + -228.....	11503

Table 17. Toxics Monitored in Selected Point Source Discharges, 1998.

Parameter	STORET Code
Water Chemistry	
BOD ₅	00310
TSS Residual Total Non-filterable.....	00530
COD.....	00340
Phosphate as P	00665
Nitrate Nitrogen as N.....	00630
Ammonia Nitrogen as N.....	00610
Total Kjeldahl Nitrogen as N.....	00625